Contents

Appendices

Figures

Section 2
Landfill Construction

The Class IV asbestos landfill is located west of the existing Lincoln County Class II/III solid waste landfill. The location of the Class IV landfill, including landfill site features, is included as Figure 1. The waste disposal site consists of four unlined landfill cells, approximately 540 feet long by 175 feet wide by 20 feet deep. Waste will be disposed and covered daily starting at a depth of 20 feet below grade. Each landfill cell will be covered and closed to a depth of the existing grade. Drainage ditches will be installed between each cell and routed to a sediment pond south of the Class IV landfill.

The Class IV landfill was designed according to a "Phased Construction" approach, in which EPA can begin disposing ACM from the emergency response actions and residential removals program prior to completing of the construction of the four cells. New cells will be excavated as needed. The construction of the landfill was designed to be performed by a General Contractor working in Level D personal protective equipment (PPE). Operation of the landfill will be conducted in Level C PPE, by Occupational Safety and Health Administration (OSHA) 40-hour trained personnel. Level C PPE consists of an air-purifying respirator, tyvek suit, inner and outer gloves, hardhat, and disposable or dedicated overboots.

Lincoln County cleared all trees from the landfill cells footprint (cells A through D) and other features (road, decontamination pad, sediment ponds). The Contractor prepared the site by clearing remaining stumps following tree clearing and stockpiled them on future cells B and D footprints. During the summer of 2003, the dry stumps and wood debris will be burned by Lincoln County. The footprint of the first cell (cell A) was cleared to 2 feet below grade and the material was stockpiled for future use. Cell A was excavated to 20 feet below original grade and a ramp was built to access the interior of the cell. Sufficient excavated material to be used for daily cover and final cover was stockpiled; the remaining was transported to other areas of Lincoln County landfill. A road was constructed around the cells and the perimeter of the area was enclosed with a fence and two gates. Sediment ponds, culverts, and drainage ditches along the outside edge of the road were installed.

A temporary decontamination (decon) pad was installed for the decontamination of haul trucks and construction equipment. The temporary steel decon pad is located along the exit road, east of cell A. CDM recommends that the temporary steel decon pad be removed during the spring of 2003 and replaced with a concrete decon pad in the same location. A decon trailer located adjacent to the decon pad was installed to provide for personnel decontamination.

Each truck/vacuum truck will enter the cell and dump the load using the ramp on the east side of the cell. During disposal, water will be applied to the waste via a water truck. If necessary during the winter months, propylene glycol (PG) will be added to the water in the water truck at a ratio of 68 gallons PG to 100 gallons of water (100 percent PG). The additive will prevent water from freezing to a temperature of -20°C.

Figure 1

A minimum of once per day (when waste is accepted), or as needed, to prevent airborne ACM contamination 6 inches of cover will be placed on top of the waste materials. Personnel and vehicles that come into contact with ACM will be decontaminated prior to exiting the site. Once the cell is approximately 70 percent full, or as disposal demand estimates require, the next cell will be excavated, separated by a berm. This construction/operations plan was designed using the following assumptions:

- Waste materials to be disposed of in the Lincoln County Class IV landfill will be bulk vermiculite, asbestos containing soils, and general asbestos-contaminated construction debris generated from EPA's emergency response actions and residential removals program;
- The waste material will be delivered to the Class IV landfill in end dump trucks, vacuum trucks, or roll off containers;
- The approximate total ACM is 150,000 cy. This amount is based on an estimated volume of 100,000 cy (based on information from the EPA's removal project) plus a 20 percent contingency for future disposal needs, plus an allowance of 25 percent for daily cover soil and berms between cells;
- Although the Class IV landfill will be open to accept ACM year-round, landfill operations will slow during the winter months. Selected ACM will be stored in roll-off containers until sufficient volume is accumulated to be disposed at one time. Roll-off containers will be airtight.

The phased cell design and landfill operation plan provides several advantages over traditional open excavation, filling, and daily cover placement. The phased approach allows the Lincoln County Landfill to begin accepting asbestos waste relatively soon following the onset of construction, rather than waiting for the excavation of the entire landfill area. The proposed operation plan also offers flexibility with regard to closure. Once the residential asbestos removal program is completed, landfill operation can cease immediately, and proceed directly into the closure phase. The landfill cover system can be installed over only the cells used, potentially reducing the size of the Class IV landfill footprint.

The total volume of waste material used for this design is 150,000 cy. Assuming the removal actions will generate asbestos material for 5 years, approximately 30,000 cy per year will be disposed of in the landfill. The asbestos removal program is planned for 6 days per week, 12 months per year. Therefore, an average of 100 cy of asbestos waste material (including daily cover) will be disposed of in the landfill per day. This average will fluctuate depending on the weather conditions.

The volume of each cell is approximately 43,350 cy. The required capacity for the first year of asbestos waste disposal is approximately 70 percent of the first cell (30,000 cy/43,350 cy). Therefore an area of 540 feet by 200 feet, space for 1 cell, will be prepared for the first year and part of the second year of operation. The total landfill

capacity is 173,400 cy (4 cells X 43,350 cy/cell). This capacity is greater than the anticipated asbestos waste generated from the removal actions (150,000 cy).

The details of the proposed landfill construction, specifically related to the sequencing of the landfill cells, are shown on Figures 1 and 2. Figure 1 depicts the site plan and location of the partially constructed Class IV landfill, cell A footprint and other features related to Phase I - Landfill construction. Figure 2 shows the site plan layout of the four cells. During Phase I, cell A was constructed while cells B, C, and D will be constructed during the Phase II operation. The layout and sequencing of the excavation of the landfill cells are depicted in Figure 2. The typical dimensions of each cell will be 175 feet wide, 540 feet long, and 20 feet deep (18 feet available for waste and daily cover, and 2 feet reserved for final cover material). Two cross sections of cell A are also included on Figure 1: north/south (section 1) and west/east (section 2). As shown on the cross sections, the sides of the cells will be excavated at a 2.5:1 slope.

According to the requirements of the ARM 17.50.530 Section 3, the final cover system must be designed with a minimum 18-inch soil infiltration layer (permeability no greater than 1 $X10^{-5}$ cm/sec) and a minimum 6-inch seed bed layer capable of sustaining native plant growth. The top six-inches of cleared material for cell A was stockpiled in the stockpile area for use as the final seedbed cover material. The remaining 1.5-feet of cleared material was stockpiled for use as daily cover at designated areas or as space allows. Prior to the acceptance of ACM, landfill construction will be performed in modified Level D PPE (steel-toe boots, hardhat, safety glasses, work gloves). Once operation of the Class IV landfill commences, the active asbestos waste disposal area will be designated an exclusion zone and all personnel and visitors will be upgraded to Level C PPE. Only OSHA (29 CFR 1910.120) trained personnel will be permitted within the exclusion zone. The public and County landfill employees will not be permitted in the active asbestos waste disposal area. During all phases of construction and operations, the Contractor must comply with OSHA 29 CFR.1920 for all construction safety matters with regard to excavation, heavy equipment operation. During landfill operations, the Contractor will comply with the Project Health and Safety Plan, supplemented by the Contractor's Health and Safety Plan addressing those activities that may not be addressed in the Project Health and Safety Plan. The Contractor's Health and Safety Plan will be reviewed and approved by the EPA On-Scene Coordinator, the Contracting Officer (CO), and/or the Contracting Officer's Technical Representative (COTR) before disposal operations can begin.

Figure 2

Section 3
Landfill Operations
3.1 Waste Disposal

The Class IV landfill will be open for waste disposal Monday through Saturday. Summer operating hours will be 9:00 a.m. to 6:00 p.m. and winter operating hours will be 8:30 a.m. to 5:30 p.m. The Class IV landfill will be staffed by the operations contractor when ACM disposal is planned. The Class IV landfill gates will be locked when the landfill is unattended. Figure 3 depicts the asbestos disposal operation plan.

Haul trucks and other Class IV landfill traffic will enter the Lincoln County property via the existing road to the Class II landfill, then bear onto the northern Class IV asbestos landfill access road. The Class IV landfill will be fenced at its perimeter with a locked gate to prevent unauthorized access. The fence line will also serve as the exclusion zone. All personnel entering the exclusion zone (including landfill operators, and visitors) must be OSHA trained and upgraded to Level C PPE in accordance with the Comprehensive Site Health and Safety Program. Trucks will be supplied with positive pressure units (PPU) and the drivers will not be allowed to exit the vehicle while in the exclusion zone.

After entering the fenced landfill area, the haul trucks will drive into the cell via the cell ramp located on the east side of the cell. After disposing of the waste, the trucks will exit the cell and drive to the decon pad where it will be decontaminated before exiting the exclusion zone. Decontamination will be required for all portions of the truck that come into contact with the asbestos waste material. Truck traffic will be directed in the field by the operator. Asbestos waste material may also be stored temporarily in roll-off bins inside of the Lincoln County Landfill area (denoted as container storage area on Figure 1). Containers will be steel and will be airtight. In addition, the containers will be locked to minimize potential tampering. Using roll-off locking containers will allow less frequent dumping and decontamination and reduce the use of decon water and antifreeze at the site. Roll-offs will require decontamination after dumping and wastes will be covered after dumping as described in this plan. No more than 100 cy of waste will be stored in the storage area at any one time. Containers will be clearly labeled as asbestos waste.

The dedicated site water truck will apply water to the waste materials to prevent asbestos material from becoming airborne, and to control dust and litter. Water will be sprayed from the truck onto the waste material. In addition, the dumping of waste will occur inside of a temporary, mobile enclosure equipped with water misting devices. The enclosure will be placed at the base of the cell, and waste will be trammed from the enclosure by loader to its final disposal location. The application of water during waste disposal will be particularly important during the disposal of bulk vermiculite from vacuum trucks. During the winter months, propylene glycol (PG) may be added to the water in the water truck to prevent it from freezing. Care must be taken by the Contractor to ensure that all the vermiculite is disposed of into the cell and that no material is allowed to become airborne, and to not apply large

Figure 3

amounts of PG that could impact groundwater. An excavator will distribute the waste in uniform lifts before placing a 6-inch layer of daily cover soil (obtained from the soil stockpile located adjacent to the cell) over the waste materials. At a minimum of once per day, 6 inches of cover soil will be applied over the waste material with the excavator. No ACM shall be left uncovered overnight. Additional applications of cover soil may be required to prevent dust or debris from becoming airborne. Once the cover soil has been applied, the waste/soil will be compacted with an excavator or bulldozer.

Once a landfill cell is approximately 70 percent filled or demand requires, the next cell to the south will be excavated. The excavator bucket, and the tracks, if they have been in contact with ACM, will be decontaminated at the decon pad prior to the start of excavation of the next landfill cell.

A container will also be located in the container storage area for the disposal of ACM generated from home/commercial renovation or other non-Libby Superfund site project related activities. Lincoln County residents wanting to dispose of ACM must contract with a licensed asbestos contractor for the transportation and disposal of the ACM. The licensed asbestos contractor must contact the Lincoln County Sanitation Department for approval prior to bringing properly packaged ACM to the landfill. The container will have a 25 cubic yard capacity and will be the same model as the containers used by the landfill operator to ensure compatibility with disposal roll-off trailers. The Lincoln County Landfill staff will be responsible for maintaining the disposal container, including security (locking and holding the key), maintaining records of the materials disposed of in the container, and ensuring that only ACM is placed in the container and that all ACM is properly packaged. The container will be labeled "Asbestos." On scheduled disposal days, the Class IV asbestos landfill operator will empty the container into the Class IV asbestos landfill as described in this plan, and returned the container to the container storage area following decontamination.

State and federal regulations dictate elements of Class IV and active asbestos waste disposal site operation including site security, waste screening, and record keeping. This operational plan describes the procedures to be followed during operation of the Lincoln County class IV landfill in the following sections. According to ARM 17.50.511(3), Class IV landfills must be designed, constructed, maintained and operated so as to control litter, insects, rodents, odor, aesthetics, residues, wastewater, leachate, and air pollutants. The following subsections describe the methods by which the landfill will be operated in order to comply with these regulations.

3.2 Dust and Airborne Particulate Control

ACM will be transported to the landfill in roll off box containers, end dump truck, or vacuum trucks. During all phases of transportation, unloading, placement of waste, and covering of asbestos-containing wastes, no visible air-borne contamination will be permitted to outside air. Landfill air monitoring will be performed by the COTR's air monitoring team subcontractor as described in Section 5.1. A weather station will be

installed on-site to log temperature, wind speed and wind direction. Perimeter air sampling units will be located at the fence line of the disposal site. Perimeter air samples will be collected prior to landfill operation to obtain a baseline of the site air conditions. Air samples will be collected during the first three disposal days and yearly thereafter to monitor site disposal activities. A description of the air sampling requirements is provided in the Sampling and Analysis Plan (Section 5).

A dedicated site water truck will be available at all times to water down the waste material during and following disposal in the landfill in the event of dust generation and visible airborne particulates. In addition to a water truck, a temporary, mobile enclosure will be placed at the base of the landfill cell which will be equipped internally with water misting devices. The enclosure will be approximately 25 ft. by 60 ft. in plan dimension and tall enough to accommodate disposal trucks. Trucks will dump inside of the enclosure, the waste will be moistened with water, and then the waste will be trammed by loader to its final disposal location inside of the cell. Waste will then be immediately covered with cover soil. During the winter months, PG may be added to the water truck to prevent freezing. The PG will be stored in an above ground storage tank adjacent to the decon pad/building.

A gravel road around the landfill perimeter provides access to the cells within the Class IV landfill. A gravel haul road running north of the Class II landfill provides access through the Lincoln County property to the Class IV landfill. This access road is separate from the Class II landfill access road. Magnesium chloride will be applied to the haul and perimeter roads following their construction. During landfill operation, the roads will be watered to prevent generation of dust. If watering methods are not successful in eliminating dust or other particulate matter, landfill operations will cease until conditions for operation improve.

Generation of dust and airborne asbestos material will be prevented by water misting and the application of 6 inches of cover soil over the waste material. The cover soil will be applied at least daily during periods of landfill operation in accordance with 40 CFR 61.154(c)(1). The application of daily cover will also control litter, disease vectors, and improve aesthetics at the landfill. The soil excavated from the individual cells will be stockpiled adjacent to the cell to use as the daily cover. In the event that the soil stockpiles become frozen during the winter months, other undisturbed areas within the Class IV Landfill will be available for daily cover.

3.3 Stormwater and Erosion Control

According to ARM 17.50.511 (1)(k)(l) runoff from the active landfill must not cause a discharge of pollutants into waters of the US, including wetlands, that violates any requirements of the Federal Clean Water Act, including NPDES and MPDES or that causes the discharge of a non-point source of pollution to waters of the US, including wetlands, that violates any requirement of an area-wide or state-wide water quality management plan that has been approved under Section 208 or 319 of the Federal Clean Water Act, as amended.

A run-on control ditch and a run-off stormwater drainage ditch were constructed on the outside and inside of the gravel access road to and surrounding the landfill, respectively. The ditches will channel stormwater off the road and away from the waste disposal site and toward a series of stormwater retention ponds located southeast of the Class IV landfill. The primary sediment pond is located in the southeast corner of the Class IV landfill footprint. Sediment from within the landfill disposal area will settle within this pond and water will be channeled via a culvert under the road toward a secondary sediment pond. Sediment will settle in the secondary sediment pond and the water will be diverted through a culvert, under a dam, to the Lincoln County landfill ditch.

Erosion control fencing will be installed and maintained on the down-slope side of all soil stockpiles. The erosion control fencing will be filter fabric sediment barrier or equivalent. Landfill stormwater and erosion control features are shown on Figure 4.

During the construction of cell 4, the primary sediment pond and approximately 50 feet of culvert connecting the ponds will be removed. The cover system for the cells is designed to channel any stormwater runoff toward the drainage ditch. Upon final closure of the landfill, the secondary sediment pond will be removed, and stormwater will be channeled into the Lincoln County landfill ditch.

3.4 Decontamination

All haul trucks and construction equipment exiting the active asbestos waste disposal cell will be decontaminated prior to leaving the exclusion zone. All personnel working in the exclusion zone will be required to go through a personnel decon prior to leaving the site.

The decon pad is located along the Class IV landfill haul road, at the northeast corner of the landfill. A steel decontamination (decon) pad, previously used at another removal site in Libby, was installed for the decontamination of haul trucks and construction equipment. Should winter operations be slowed with the steel decon pad, it will be removed and replaced with a concrete decon pad at the same location.

In a letter to the Volpe Center dated October 20, 2002, CDM identified two options for winter decontamination of trucks and construction equipment. These options are:

1. Constructing a heated pole barn around the decon pad to shelter personnel and equipment from the elements and to prevent freezing of decontamination water. The building will be heated by propane to prevent the decontamination water from freezing.

2. Adding PG to the decontamination water to prevent freezing.

The Government has elected to use PG, if necessary during winter operations. Decontamination may include truck beds and truck tires, depending on contact with ACM, as well as the tracks and bucket of the excavator or dozer used to move the

Figure 4

waste materials within the cells. The concrete decon pad shall be a permanent 50-foot long by 30-foot wide concrete pad, with a 800-gallon sump to collect all decontamination water. The Contractor will periodically clean out the sediment and used decon water from the sump and dispose of the materials in the active landfill cell. Water for decontamination will be contained in a 1000 gallon underground storage tank. The tank will be filled as needed via the dedicated site water truck. There is no water source available on the Lincoln County property. All decon water, as well as water for dust control of waste and on roads must be obtained by the Contractor from an approved location. A decon trailer is located adjacent to the decon pad to provide for personnel decontamination. Hot and cold water to be used to decontamination is provided to the decon trailer. Personnel decontamination shall be conducted in accordance with the Comprehensive Site Health and Safety Program Plan. All disposable PPE shall be collected in double bags and disposed of in the landfill.

3.5 Health and Safety

As described above, all work during the operation of the asbestos waste disposal site will be conducted in Level C PPE. Only OSHA trained employees will be permitted within the active asbestos waste disposal area. The public and County government officials who are not OSHA trained will not be permitted in the disposal area. All work during landfill operation will comply with the Comprehensive Site Health and Safety Program. The Contractor will prepare a site specific Health and Safety Plan (HASP) for all work not included in the Comprehensive Site Health and Safety Program Plan. Minimum required elements of the site specific HASP are as follows:

- Delineation of work zones including exclusion zone, contamination reduction zone, and support zone;
- Description of site hazards and contaminants (asbestos);
- Identification of Site Health and Safety Coordinator;
- Description of Level C PPE, to include the use of air purifying respirators with P100 cartridges in the exclusion zone;
- Any site field monitoring to be performed;
- Personnel and equipment decontamination procedures;
- Emergency contact names and phone numbers; and
- Signature page signed by all site personal indicating that HASP is understood and will be complied with.

Personnel air monitoring will be performed by the COTR's air monitoring team subcontractor. At the onset of landfill operation, a task-based exposure assessment

will be performed for personnel engaged in each work activity. Personnel air monitoring will be conducted at a frequency based on the results of the assessment in accordance with OSHA regulations.

Additionally, all personnel engaged in work at an asbestos disposal site must meet the requirements for accreditation and permitting outlined in ARM 17.74.314.

3.6 Site Security

ARM 17.50.511(1)(c) states that Class IV landfills must be fenced to prevent unauthorized access and must be supervised when open. Likewise, according to 40 CFR 61.154(b), fencing must be installed and maintained in a manner adequate to deter access by the general public. The federal asbestos regulations require that warning signs be displayed at all entrances and at intervals of 330 feet along the perimeter of the site where asbestos-containing waste material is deposited. The signs must be posted in accordance with 40 CFR 61.154(b)(1).

The Lincoln County Class IV asbestos waste landfill is fenced at the perimeter with a 6-foot high chain-link fence with three strands of barbed wire segregating the Class IV landfill from the Lincoln County Class II landfill. Additionally, temporary orange construction safety fence segregates the active landfill cell (and the exclusion zone) from the remaining landfill area. A metal swinging gate provides access to the landfill. The landfill will be staffed while ACM disposal is planned. When the landfill is closed, the gate will be locked. Signage will be installed in compliance with 40 CFR 61.154(b)(1). Fencing and signage will be maintained during active waste disposal, closure, and post-closure.

3.7 Waste Screening

The Lincoln County Class IV landfill can accept the following categories of wastes:

1. Group III Wastes: include wood and non-water soluble solids. These wastes are characterized by their general inert nature and low potential for adverse environmental impacts. These wastes include inert solid waste such as unpainted brick; dirt, rock, concrete; clean untreated and unglued wood material; brush; unpainted or untreated lumber; vehicle tires; and industrial mineral wastes which are essentially inert and non-water soluble and do not contain hazardous waste constituents.

2. Group IV Wastes: include construction and demolition debris, and asphalt.

The Class IV landfill is not permitted to accept Group II wastes which include decomposable wastes. ARM 17.50.511 prohibits the acceptance of the following materials at Class IV landfills:

- Regulated hazardous waste/PCB wastes;

- Bulk or noncontainerized liquid waste, unless approved in advance by DEQ or the waste is a household waste (other than septic); and

- Containerized liquid waste, unless the container is small and similar in size to that normally found in household waste, the container is designed to hold liquids for use other than storage, or the waste is a household waste.

According to ARM 17.50.511 (1)(e), the operator must implement a program for detecting and preventing the disposal of regulated hazardous waste/PCB wastes. The waste-screening program must include:

1. Random inspection, unless other steps are taken to ensure that incoming loads do not contain hazardous waste/PCB waste;

2. Records of inspections;

3. Training of personnel to recognize regulated hazardous waste/PCB waste; and

4. Notification to DEQ if regulated hazardous/PCB waste is discovered at the facility.

Prior to material being hauled to the Class IV landfill, EPA's removal contractor will pre-screen the waste for acceptability at the Class IV Facility. Pre-screening will involve visual inspection of the facilities to be demolished. Any liquid materials such as paint cans, cleaners, solvents, etc. will be removed from the facility prior to demolition. In addition, glues, resins, dyes, oils, pesticides, and any other household hazardous wastes will be removed and the facility will also be inspected for PCB containing light fixtures. Any unacceptable material found during the pre-screening process will be removed from the Class IV waste stream, documented, appropriately manifested, containerized and disposed of at facilities licensed to accept such wastes, separately in accordance with state and federal regulations. The Government will sign all manifests and bills of lading.

In addition to pre-screening, the landfill operators will also be visually inspecting loads as they are deposited in the landfill. Unacceptable material will be removed if detected during the waste placement process.

3.8 Record Keeping

Currently, there is no weigh station at the Lincoln County landfill. All waste loads arriving at the facility for disposal will be tracked via the Waste Shipment Record (WSR). The WSR should be maintained using a form similar that shown in Appendix A. The landfill operator will inspect random waste loads in accordance with the previous section. In accordance with 40 CFR 61.154(e), the landfill operator will verify the information on each load's WSR to ensure that the information on the WSR accurately describes the waste shipment with regard to quantity and proper enclosure of the load.

The landfill operator must verify that the information in WSR Item 6 (number and type of waste containers) coincides with the quantities reported in Item 7 (cubic yards of waste). If there is any discrepancy between the waste load quantity recorded on the WSR and the quantity observed in the load, the landfill operator must make note of the discrepancy in Item 12 of the WSR. The landfill operator should make an attempt to reconcile the discrepancy between the waste shipment record and the waste received with the waster generator. If the discrepancy is resolved, it should be noted on the WSR. If the discrepancy cannot be resolved within 15 days of receipt of the waste, a discrepancy report must be sent to the agency responsible for the generation of the waste and the landfill site (EPA). The report should describe the discrepancy and steps taken to resolve it along with a copy of the WSR.

If inspection of the waste load indicates that that a significant amount of improperly enclosed or uncovered waste exists, note must be made in Item 12 of the WSR and a written report including a detailed description of the situation and a copy of the WSR submitted to EPA.

Once the loads have been examined, and discrepancies noted, the landfill operator must complete Item 13 (Certification of Receipt) of the WSR, then inform the generator of receipt of the load by sending a copy of the WSR to the waste generator no longer than 30 days after receipt of the waste. Copies of the WSRs must be maintained by the landfill operator for a period of 2 years in accordance with 40 CFR 61.154(e)(4). Copies should be made available for inspection during business hours.

The waste disposal operator must maintain records of the location, depth and area, and quantity in cubic yards of asbestos containing waste in the disposal site on a map of the disposal area.

40 CFR 61.154(e) and 17.50.511(1)(p) specify the requirements of records to be maintained by the landfill. For all asbestos-containing waste material received, the owner/operator of the landfill shall maintain waste shipment records including, at a minimum:

1. The name, address, telephone number of the generator;
2. The name, address and telephone number of the transporter;
3. The quantity of the asbestos-containing material in cubic yards;
4. The presence of improperly enclosed or uncovered waste; and
5. The date of receipt.

Records maintained by the landfill must also include:

1. Inspection records, training procedures, results and information from the comprehensive employee health monitoring plan, and notification procedures;

2. Any demonstration, certification, finding, monitoring, testing, or analytical data required by department groundwater monitoring regulations found in ARM 17.50.701;

3. Closure and post closure care plans;

4. Cost estimates and financial assurance documentation; and

5. Any waste quantity records.

The operator must retain records at the landfill in an alternate location approved by DEQ. Duplicate landfill records will be kept in a separate location, at the Lincoln County Environmental Health office. The owner/operator must notify the DEQ when documents have been placed or added to the record. All information must be made available for inspection by DEQ and the public. According to ARM 17.74.341, records must be maintained and made available to DEQ when requested, for 30 years.

According to 40 CFR 61.154(h)(i), the operator must, upon closure, submit a copy of the records of asbestos waste disposal locations and quantities to the EPA Administrator. All records must be made available to the EPA administrator during regular business hours.

If, for any reason, the operator plans to excavate or otherwise disturb any asbestos containing waste that has been disposed and covered at the landfill, the operator must notify the EPA and DEQ at least 45 days prior to the disruptive activity. In accordance with 40 CFR 61.154(j), notification must include:

1. Starting and completion dates;

2. Reason for disturbing the waste;

3. Methods for controlling emissions during excavation, storage, transport and disposal; and

4. Location of temporary storage area and final disposition site.

The volume of the waste materials disposed of in the landfill will be estimated through quarterly in-place surveying. The empty as-built landfill cell A has been surveyed. On a quarterly basis, the cell will be surveyed to determine the volume placed in the cell. Each cell, to be constructed as needed, will be surveyed prior to waste placement and quarterly once disposal commences.

3.9 Methane Gas Generation

According to ARM 17.50.511(1)(f), the operator must ensure that methane gas generated does not exceed 25 percent of the lower explosive limit (LEL) for methane in facility structures and that methane does not exceed the LEL at the facility property boundary. Due to the inert quality of the waste materials accepted at the Lincoln

County Class IV landfill, it is not anticipated that significant quantities of methane gas will be generated. Most of the waste to be accepted is expected to be inorganic wastes such as vermiculite, soil, and concrete. However, some wood waste from structures will be accepted as well. Distances from structures and the location of the landfill from such structures is significant. Therefore, unless the classification of the landfill changes over the period of landfill operation, or unless significant development occurs adjacent to the landfill, an exemption from monitoring methane gas is requested.

Section 5
Sampling and Analysis Plan

This section presents the Sampling and Analysis Plan (SAP) developed in preparation for the monitoring to be performed during the operation of the Lincoln County Class IV Asbestos Landfill in Libby, Montana. The primary purpose of this plan is to summarize the sampling requirements for asbestos in ambient air during landfill operations air and groundwater monitoring.

5.1 Air Monitoring

According to ARM 17.50.511(1)(i), the owner/operator of a landfill unit must ensure no violation of requirements developed under the state implementation plan (SIP) approved or promulgated by the EPA administrator pursuant to Section 110 of the Clean Air Act as amended. Air monitoring requirements for asbestos projects are also included in ARM 17.74.338, Asbestos Abatement Project Control Measures.

Air monitoring during landfill operations will be performed by the COTR's team subcontractor who will supply all required air monitoring stations, sampling equipment, and personnel.

5.1.1 Meteorology

A Meteorological station will be established on-site for weather data collection for two weeks minimum prior to disposal of ACM in the landfill. Weather data will help to support the degree that samples were actually downwind and verify that the sample locations represent the worst-case airborne asbestos concentrations. Meteorological parameters that will be monitored are temperature, wind speed, wind direction and sigma theta (which is the horizontal wind direction standard deviation and an indicator of atmospheric stability). Wind speed is a critical factor in determining the potential migration of asbestos fibers from the landfill cell. Wind direction can highly influence the path of airborne asbestos. Atmospheric stability refers to the degree to which the atmosphere tends to dampen vertical and horizontal motion. Stable atmospheric conditions (i.e., evenings) result in low dispersion, and unstable atmospheric conditions (i.e., hot sunny days) result in higher dispersion.

Two weeks of weather data will be gathered from a weather station equipped with a data logger to record temperature, wind speed, wind direction at the landfill before operations commence. Sigma theta will be calculated from the data collected. Atmospheric stability will be documented daily when air samples are collected. Prevailing wind direction is particularly important when selecting monitoring locations for potential asbestos release from a fixed source, or in this case the landfill.

5.1.2 Ambient Sampling Stations

During the first three days of landfill operations, the exclusion zone will be monitored for asbestos migration by collecting ambient air samples at established sample stations. If initial ambient air sampling results indicate the Government Contractor's engineering control adequately reduce the limits of airborne asbestos fibers to

acceptable levels, perimeter air monitoring will be conducted once per year thereafter. Ambient air sampling will be conducted in accordance with EPA SOP 2015 (Appendix C). Samples will be collected during the first three ACM disposal days at the landfill and yearly thereafter. The location of the sample stations will be selected as follows:

Table 1 Selecting the location of the samples stations at the Lincoln County Landfill

Sample Station Location	Sample Numbers	Rationale
Upwind/Background	Collect a minimum of two simultaneous upwind/background samples 30° apart from the prevailing wind-lines.	Establish background levels
Downwind	Collect a minimum of 3 sample stations in a 180° arc downwind from the landfill.	*Indicates if asbestos is leaving the site.
Worst Case/Personal Breathing Zone	**Obtain a personal breathing zone sample on an employee working in the exclusion zone.	Verify and continually confirm and document selection of proper levels of worker protection.

* Special attention will be paid to the downwind sample station locations
** This personal breathing zone sample will represent a worst-case ambient fiber concentration at the landfill cell.

5.1.3 Personal Breathing Zone Air Sampling

During landfill operations, personal breathing zone air samples will be conducted in accordance with OSHA 1926.1101. An exposure assessment will be completed at the initiation of the landfill operation to ascertain expected exposures. This assessment will be completed to provide information necessary to assure that all planned control systems are appropriate for the operation and work properly. Representative 8-hour time weighted average (TWA) task-based exposures will be determined on the basis of air samples representing full-shift exposures. The OSHA permissible exposure limit (PEL) for 8-hour TWA employee exposure is 0.1 f/cc by phase contrast microscopy (PCM). Evaluation of the landfill operations will take place before the commencement of operations to ensure all tasks have been evaluated and proper engineering controls are employed. This evaluation will ensure employee exposures are below the 8-hour TWA PEL. If the 8-hour TWA is above 0.1 f/cc, then the sample will be analyzed by transmission electron microscopy (TEM) to identify the concentrations of asbestos structures.

Representative 30-minute short-term exposures will be determined for each task established during the initial operations evaluation. 30-minute excursions will be collected during periods that are most likely to produce the greatest exposure. The OSHA 30-minute excursion limit is 1.0 f/cc by PCM. If the 30-minute excursion limit is above 1.0 f/cc, then the sample will be analyzed by TEM to identify the concentrations of asbestos structures.

After 3 days of exposure monitoring per operation task, the data will be evaluated to determine if the level of respiratory protection should be modified. After 3 days of task based exposure monitoring, a sample collection frequency will be developed. The samples will be used to verify, continually confirm and document that the proper level of respiratory protection is in use for each landfill task.

5.1.4 Air Sample Collection and Analysis

Ambient air samples will be collected using a constant flow or critical orifice controlled sampling pump. Sampling pumps will be capable of providing the appropriate flow-rate and duration to achieve desired volumes. Personal breathing zone air samples will be collected using battery operated low volume sampling pumps. The personal air-sampling pump will be a self-contained unit small enough to be placed on the monitored employee and not interfere with the work performance. The pump must be capable of sampling at the desired flow-rate and duration.

Sampling pumps will be calibrated immediately before and after each sample period. Sampling pumps will be calibrated with the sampling cassette in-line using a primary calibrator or a rotometer calibrated to a primary calibrator. Rotometer calibration will be performed on a monthly basis during air sampling at the landfill.

Sampling cassettes will consist of a conductive filter holder consisting of a 25-mm diameter, 3-piece cassette having a 50-mm long electrically conductive extension cowl with a 25-mm cellulose backup pad. The filter membrane will consist of a mixed-cellulose ester (MCE), 25-mm, plain, white, 0.4 to 1.2-um pore size filter.

All personal and ambient air samples will be analyzed at the mobile laboratory in Libby, Montana. All personal breathing zone air samples will be analyzed using Phase Contrast Microscopy (PCM) in accordance with NIOSH Method 7400. The PCM laboratory results will be used to calculate the OSHA 8-hour TWA and the 30-minute excursion limit.

All ambient air samples and any personal breathing zone air samples that exceed the OSHA 8-hour TWA or 30-minute excursion limit by PCM analysis will be analyzed using transmission electron microscopy (TEM) in accordance with EPA Asbestos Hazard Emergency Response Act (AHERA) analytical methods (Appendix D).

TEM AHERA uses the same sampling procedures and counting rules as NIOSH Method 7400, but has the advantage over PCM of positive identification of asbestos. Raw analytical data is reported in total structures greater than or equal to 0.5 μm in length and separately for fibers greater than 5 μm in length. This method reports analytical results in total asbestos structures per square millimeter (S/mm^2) of the filter. Analysis of ambient air samples collected during landfill operations will be designed to maintain an analytical sensitivity of 0.005 structures per cubic centimeter (S/cc) of air based on the volume and effective filter area.

5.1.5 Quality Control Air Samples

Field personnel will prepare and collect three types of QC samples: lot blanks, field blanks, and replicate samples.

Lot Blanks

Lot blanks are prepared by submitting 2 unused air cassettes per 100 cassettes from the same lot for analyses to ensure the lot has not been contaminated. Lot blanks will be analyzed by both NIOSH 7400 and TEM AHERA before the lot of cassettes are used to collect air samples. If the lot is proved to be contaminated with 2 or more fibers per cc by PCM or 1 or more structures per mm^2 by TEM AHERA, then the lot of cassettes will be discarded and a new lot of cassettes will be obtained.

Field Blanks

Each sample group will include a minimum of two field blanks. Additional field blanks will be collected at a frequency of 10%. These blanks will come from the same lot as the filters used for the sample collection. The field blank results shall be averaged and subtracted from the analytical results before reporting. Any samples represented by a field blank having a result in excess of the detection limit shall be rejected. Field blanks will be collected by removing the cap from the sample cassette at the time of sampling for not more than 30 seconds and replacing it.

Replicate Samples

As a means of ensuring QC during ambient air sampling, field personnel will collect field replicate samples (co-located samples). Replicate samples will be collected at the same flow-rate, duration and using the same type of equipment used to collect the field samples. Field replicate samples will be collected at a rate of 1 per 20 samples (5%).

5.1.6 Sample Identification

Each personal air sample and ambient air sample will be identified with a unique coding system. For QC purposes, this coding system (Index ID) is designed to prevent accidental duplication of sample identification numbers and ensures that all samples have a unique identification number assigned to them. These codes start at XX-00001, which corresponds to the Landfill air sampling team. The last five numbers are sequential so thousands of unique codes are available, as necessary. To ensure that the laboratory is "blind" or unbiased, and does not receive certain specific information about a sample, only the index identification code will be used to label sample cassettes.

This coding system may be modified to suit field conditions and any modifications will be clearly described in the applicable field logbook.

5.1.7 Sample Documentation

Sampling activities will be documented in a field logbook and on field data sheets (Appendix E) to be maintained by the field team according to CDM Federal Programs

Corporation SOP 4-1 Field Logbook Content and Control (Appendix F). The field team leader will be responsible for maintenance and document control of the field logbook.

5.1.8 Sample Custody, Packaging, and Shipping

This section details the sample custody and the classifying, identifying, labeling, packaging, and transportation of ambient and personal air samples collected during landfill operations. Sample classification is necessary to ensure the protection of personnel involved in the shipment of samples, and to maintain the integrity of each sample. Personal air samples and ambient air samples collected during this assessment will be packaged and shipped according to CDM's SOP 2-1 Packaging and Shipping of Environmental Samples Revision 1, dated June 20, 2001 (Appendix F).

To maintain a record of sample collection, transfer between personnel, shipment, and receipt by the laboratory, chain-of-custody (COC) records will be used. The COC record will be maintained as physical evidence of sample custody and control and provides the means to identify, track, and monitor each individual sample from the point of collection through final data reporting. COC procedures will follow the requirements set forth in CDM SOP 1-2 Sample Custody, with approved project specific modifications (Appendix F).

The following modifications to SOP 1-2 have been reviewed and approved:

Section 5.2, Sample Labels and Tags - A label will be affixed to each air sampling cassette prior to being shipped to the appropriate laboratory. This number will correspond to the number assigned (XX, Index ID) to that particular sample in the field data sheets.

Samples collected during this investigation will be packaged and shipped according to CDM SOP 2-1 Packaging and Shipping of Environmental Samples (Appendix F).

The approved modifications to SOP 2-1 are as follows:

> Section 4.0, Required Equipment - No vermiculite or other absorbent material will be used. No bubble wrap or ice will be used.

5.1.9 Equipment Decontamination

This project requires the decontamination of all personal air sampling and ambient air sampling equipment (e.g., pumps, cassettes, tubing, etc) prior to sampling and prior to leaving the site. Equipment used to collect, handle, or calibrate samples will be decontaminated.

The decontamination procedure for nondisposable equipment will consist of wet wiping the exposed surfaces. All equipment will then be allowed to air-dry. All equipment will be decontaminated before coming into contact with any sample.

5.2 Groundwater Monitoring

5.2.1 Field Investigation

One monitoring well was installed up gradient (CDM-MW-7) and one monitoring well was installed down gradient (CDM-MW-8) of the Class IV Asbestos landfill. The locations of the monitoring wells are shown on Figure 5. Monitoring well construction diagrams are included in the Geotechnical Memorandum (Appendix B). The monitoring wells were advanced to 259 feet below ground surface (bgs) and 239 feet bgs, respectively. Previous investigative reports indicate that the regional aquifer is located a depth greater than 300 feet bgs while a perched aquifer was identified in the vicinity of the landfill at a depth of 150 to 200 feet bgs. Monitoring wells CDM-MW-7 and CMD-MW-8 were installed within the perched aquifer.

5.2.2 Groundwater Sampling

Monitoring wells CDM-MW-7 and CDM-MW-8 were sampled on July 30 and July 31, 2002 and analyzed for volatile organic compounds (VOCs), total petroleum hydrocarbons (diesel range organics and gasoline range organics), polychlorinated biphenyls (PCBs), priority pollutant 13 metals (PP13 metals), and polynuclear aromatic hydrocarbons (PAHs) by EnChem in Madison, Wisconsin, and asbestos by EMSL in Libby, Montana. Prior to sampling, these newly installed monitoring wells were developed by bailing and pumping using a pumping truck equipped with a stainless steel submersible pump and bailer. Each well was purged for several hours until the turbidity was decreased and the purge water was visually clear. The tubing was decontaminated by running the exterior through a box steam cleaner. Alconox and water were pumped to decontaminate the interior of the hosing and the pump. Baseline sampling data for monitoring wells CDM-MW-7 and CDM-MW-8 is included as Appendix G. Each sample was assigned a unique sample identification number when submitted to the laboratory. The sample description (monitoring well ID) and corresponding sample ID numbers for the July 2002 sampling event are listed below:

Sample ID	Sample Description
1R-14261	MW-8 groundwater sample
1R-14262	MW-8 duplicate groundwater sample
1R-14263	MW-7 groundwater sample

Monitoring wells CDM-MW-7 and CDM-MW-8 were also sampled in May of 2003, prior to commencement of ACM disposal in landfill Cell A. The May 2003 sampling data for monitoring wells CDM-MW-7 and CDM-MW-8 is also included in Appendix G. The monitoring well ID and corresponding sample ID numbers for the May 2003 sampling event are listed below:

Figure 5

Sample ID	Sample Description
1R-20125	MW-8 groundwater sample
1R-20126	MW-8 duplicate groundwater sample
1R-20127	MW-7 groundwater sample
1R-20128	Field Blank
1R-20129	Trip Blank

Future sampling of monitoring wells CDM-MW-7 and CDM-MW-8 will occur semi-annually in June and December during low and high groundwater periods and to coincide with Lincoln County's landfill monitoring well sampling schedule. Groundwater samples will be collected in accordance with CDM's SOPs: 1-6, Water Level Measurement; 4-3, Well Development and Purging; and 1-5, Groundwater Sampling Using Bailers (Appendix F). A submersible pump, Grundfos or equivalent, will be employed for purging and sampling using low flow groundwater purging and sampling techniques. Prior to purging, water depth will be measured to the nearest 0.01 foot using a water level indicator. The monitoring wells will be purged at a rate of 100 to 500 millimeters per minute using either dedicated or disposable Teflon tubing. During purging, field parameters (temperature, dissolved oxygen, pH, specific conductance, and turbidity) will be measured and recorded. Purging will be considered complete when the field parameters stabilize within 10 percent for three consecutive readings or until three monitoring well pore volumes were purged. Purge water will be handled in accordance with SOP 2-2, Guide to Handling Investigation-Derived Waste (Appendix F).

Sampling activities will be documented in a field logbook and on field data sheets (Appendix E) to be maintained by the field team according to CDM SOP 4-1 Field Logbook Content and Control (Appendix F). The field team leader will be responsible for maintenance and document control of the field logbook.

Samples will be collected in laboratory-supplied bottles with appropriate preservative and placed in a chilled container immediately after sampling. Samples will be packaged and shipped to the appropriate laboratory in accordance with SOPs 1-2, Sample Custody and 2-1 Packaging and Shipping of Environmental Samples (Appendix F).

The submersible pump and any equipment not dedicated to a specific well will be decontaminated between monitoring wells in accordance with SOP 4-5, field Equipment Decontamination (Appendix F).

5.2.3 Sample Analysis

All samples will be analyzed for the parameters listed in Table 1 of ARM 17.50.708(16)(b). These parameters are includes in the table below:

Table 2 Ground Water Monitoring Parameters

Metals	Volatile Organic Compounds	Other
Antimony	Acetone	Chloride
Arsenic	Acrylonitrile	Nitrate (as N)
Barium	Benzene	Sulfate (SO4)
Beryllium	Bromochloromethane	Chemical Oxygen
Cadmium	Bromodichloromethane	Demand (COD)
Chromium	Bromoform	pH
Cobalt	Carbon disulfide	Specific
Copper	Carbon tetrachloride	conductance
Cyanide	Chlorobenzene	
Iron	Chloroethane	
Lead	Chloroform	
Mercury	Chlorodibromomethane	
Nickel	Dichlorodifluoromethane	
Selenium	1,2-Dibromo-3-chloropropane (DBCP)	
Silver	1,2-Dibromoethane(EDB)	
Thallium	o-Dichlorobenzene(1,2-Dichlorobenzene)	
Vanadium	p-Dichlorobenzene (1,4-Dichlorobenzene)	
Zinc	trans-1,4-Dichloro-2-butene	
	1,1-Dichloroethane	
	1,2-Dichloroethane	
	1,1-Dichloroethylene	
	cis-1,2-Dichloroethylene	
	trans-1,2-Dichloroethylene	
	1,2-Dichloropropane	
	cis-1,3-Dichloropropene	
	trans-1,3-Dichloropropene	
	Ethylbenzene	
	2-Hexanone(Methyl butyl ketone)	
	Methyl bromide (Bromomethane)	
	Methyl chloride(Chloromethane)	
	Methylene bromide(Dibromomethane)	
	Methylene chloride	
	Methyl ethyl ketone (MEK)	
	Methyl iodide (Iodomethane)	
	4-Methyl-2-pentanone(Methyl isobutyl ketone)	
	Styrene	
	1,1,1,2-Tetrachloroethane	
	1,1,2,2-Tetrachloroethane	
	Tetrachloroethylene	
	Toluene	
	1,1,1-Trichloroethane	
	1,1,2-Trichloroethane	
	Trichloroethene	
	Trichlorofluoromethane	
	1,2,3-Trichloropropane	
	Vinyl acetate	
	Vinyl chloride	
	Xylenes	

Groundwater samples will be submitted to a Government contract laboratory for laboratory analysis under Chain of Custody protocol. The samples will be chilled and shipped via overnight carrier. Groundwater samples will also be analyzed for asbestos fibers by EMSL. The parameters listed in Table 1 and asbestos will be monitored in the groundwater twice per year. The Department of Environmental Quality (DEQ) may specify an alternative frequency and/or list of parameters for

repeated sampling and analysis if it can be demonstrated that the removed constituents are not expected in or derived from the waste contained in the unit.

5.2.4 Quality Assurance/Quality Control

One groundwater field duplicate and one field blank will be collected during groundwater sampling activities and analyzed for the same parameters. A trip blank will accompany all shipments of samples to be analyzed for VOCs.

The laboratory shall meet or exceed the QA/QC requirements of the USEPA methods, including matrix spikes, matrix spike duplicates, surrogate spikes, method blanks, and detection limits. Upon receipt of the analytical results, the data will be validated according to CLP Guidelines, with data qualifiers assigned as needed.

- The low permeability barrier layer thickness shall be determined from three density test locations per lift using a method consisting of hand augering or push tubes sampling (with a minimum of a 3/4" diameter sample).

6.2.3 Top Vegetative Layer

The top vegetative layer will be 6 inches thick. Topsoil will be obtained from on- site or off-site borrow areas. Testing of the topsoil will consist of the pH, organic content, percent cation exchange capacity (CEC), soil texture, and nutrient content for each borrow source. The results of the test will determine if amendments (lime, fertilizer, etc.) are necessary for vegetative growth. Immediately after construction of the topsoil layer and any surface water diversion structures, the final cover will be revegetated.

The final cover will be revegetated by the scarification of the top layer (minimum 2 inches) with drill seeding or hydroseeding. The seed mix will be as follows:

Table 3 Seed Mix

Plant Species			Seeding Rates (Pounds Pure Live Seed per Acre)	
Botanical Name	**Common Name**	**Grass Composition (%)**	**Drill Seeding**	**Broadcast or Hydroseeding**
Festuca ovina, var. Covar	sheep fescue	10	1.2	2.4
Bromus marginatus, var. Bromar	mountain brome	25	3.0	6.0
Phleum alpinum	alpine timothy	15	1.8	3.6
Thinopyrum intermedium	intermediate wheatgrass	5	0.6	1.2
Elymus lanceolatus	streambank wheatgrass	20	2.4	4.8
Elymus Canadensis	Canada wildrye	10	1.2	2.4
Elymus trachycaulus	slender wheatgrass	5	0.6	1.2
Pseudoroegneria spicata	bluebunch wheatgrass	10	1.2	2.4
Total Grasses		100	12	24
Astragalus cicer	Milkvetch	NA	1.5	3.0
Lotus corniculatus	birdsfoot trefoil	NA	1.5	3.0
Total Herbaceous Perennials		NA	15.0	30.0
Secale cereale	cereal rye	NA	3.0	6.0

Only certified seeds shall be used. Per State of Montana regulations, seed shall contain no prohibited noxious weed seed. Seed shall be certified weed-free by the seed supplier. The application of fertilizer should consist of 34 percent nitrogen, 52 percent phosphorus, and 60 percent potassium, spread at a rate of 150 pounds/acre.

Add to Appendix G

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill
Lab Order: 0305131
Date Received: 5/19/03

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date
0305131-01A	1R-20125	5/15/03
0305131-01B	1R-20125	5/15/03
0305131-01C	1R-20125	5/15/03
0305131-01D	1R-20125	5/15/03
0305131-01E	1R-20125	5/15/03
0305131-01F	1R-20125	5/15/03
0305131-02A	1R-20126	5/15/03
0305131-02B	1R-20126	5/15/03
0305131-02C	1R-20126	5/15/03
0305131-02D	1R-20126	5/15/03
0305131-02E	1R-20126	5/15/03
0305131-02F	1R-20126	5/15/03
0305131-03A	1R-20127	5/15/03
0305131-03B	1R-20127	5/15/03
0305131-03C	1R-20127	5/15/03
0305131-03D	1R-20127	5/15/03
0305131-03E	1R-20127	5/15/03
0305131-03F	1R-20127	5/15/03
0305131-04A	1R-20128	5/15/03
0305131-04B	1R-20128	5/15/03
0305131-04C	1R-20128	5/15/03
0305131-04D	1R-20128	5/15/03
0305131-04E	1R-20128	5/15/03
0305131-04F	1R-20128	5/15/03
0305131-05A	1R-20129	5/15/03

AMRO Environmental Laboratories Corp. **Date:** *02-Jun-03*

CLIENT: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill
Lab Order: 0305131

CASE NARRATIVE

WET CHEMISTRY
1.Samples were analyzed for pH and Nitrate analyses past the EPA recommended holding time.

AMRO Environmental Laboratories Corp.

02-Jun-03

Lab Order: 0305131
Client: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date	Batch ID
0305131-01A	1R-20125	5/15/03	Groundwater	GASOLINE RANGE ORGANICS		5/28/03	5/28/03	R18999
				VOLATILES by GC/MS		5/24/03	5/24/03	R18965
0305131-01B				ARSENIC, Dissolved		5/21/03	5/27/03	9127
				ICP METALS, DISSOLVED		5/21/03	5/21/03	9127
				LEAD, Dissolved		5/21/03	5/27/03	9127
				MERCURY, Dissolved		5/20/03	5/20/03	9112
				SELENIUM, Dissolved		5/21/03	5/27/03	9127
				THALLIUM, Dissolved		5/21/03	5/27/03	9127
0305131-01C				PAH BY EPA 8270C		5/22/03	5/27/03	9146
0305131-01D				PCBS IN WATER		5/22/03	5/23/03	9149
0305131-01E				DIESEL RANGE ORGANICS		5/21/03	5/21/03	9135
0305131-01F				Ion Chromatography			5/21/03	R18925
				Nitrate in Water (Lachat)			5/21/03	R18975
				pH, Water			5/21/03	R18973
0305131-02A	1R-20126			GASOLINE RANGE ORGANICS		5/28/03	5/28/03	R18999
				VOLATILES by GC/MS		5/24/03	5/24/03	R18965
0305131-02B				ARSENIC, Dissolved		5/21/03	5/27/03	9127
				ICP METALS, DISSOLVED		5/21/03	5/21/03	9127
				LEAD, Dissolved		5/21/03	5/27/03	9127
				MERCURY, Dissolved		5/20/03	5/20/03	9112
				SELENIUM, Dissolved		5/21/03	5/27/03	9127
				THALLIUM, Dissolved		5/21/03	5/27/03	9127
0305131-02C				PAH BY EPA 8270C		5/22/03	5/27/03	9146
0305131-02D				PCBS IN WATER		5/22/03	5/23/03	9149
0305131-02E				DIESEL RANGE ORGANICS		5/21/03	5/21/03	9135
0305131-02F				Ion Chromatography			5/21/03	R18925
				Nitrate in Water (Lachat)			5/21/03	R18975
				pH, Water			5/21/03	R18973

AMRO Environmental Laboratories Corp.

02-Jun-03

Lab Order: 0305131
Client: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date	Batch ID
0305131-03A	1R-20127	5/15/03	Groundwater	GASOLINE RANGE ORGANICS		5/28/03	5/28/03	R18999
				VOLATILES by GC/MS		5/24/03	5/24/03	R18965
0305131-03B				ARSENIC, Dissolved		5/21/03	5/27/03	9127
				ICP METALS, DISSOLVED		5/21/03	5/21/03	9127
				LEAD, Dissolved		5/21/03	5/27/03	9127
				MERCURY, Dissolved		5/20/03	5/20/03	9112
				SELENIUM, Dissolved		5/21/03	5/27/03	9127
				THALLIUM, Dissolved		5/21/03	5/27/03	9127
0305131-03C				PAH BY EPA 8270C		5/22/03	5/27/03	9146
0305131-03D				PCBS IN WATER		5/22/03	5/23/03	9149
0305131-03E				DIESEL RANGE ORGANICS		5/21/03	5/21/03	9135
0305131-03F				Ion Chromatography			5/21/03	R18925
				Nitrate in Water (Lachat)			5/21/03	R18975
				pH, Water			5/21/03	R18973
0305131-04A	1R-20128		Aqueous	GASOLINE RANGE ORGANICS		5/28/03	5/28/03	R18999
				VOLATILES by GC/MS		5/24/03	5/24/03	R18965
0305131-04B				ARSENIC, Total		5/21/03	5/27/03	9127
				ICP METALS, TOTAL		5/21/03	5/21/03	9127
				LEAD, Total		5/21/03	5/27/03	9127
				MERCURY, Total		5/20/03	5/20/03	9112
				SELENIUM, Total		5/21/03	5/27/03	9127
				THALLIUM, Total		5/21/03	5/27/03	9127
0305131-04C				PAH BY EPA 8270C		5/22/03	5/27/03	9146
0305131-04D				PCBS IN WATER		5/22/03	5/23/03	9149
0305131-04E				DIESEL RANGE ORGANICS		5/21/03	5/21/03	9135
0305131-04F				Ion Chromatography			5/21/03	R18925
				Ion Chromatography			5/22/03	R19030
				Nitrate in Water (Lachat)			5/21/03	R18975

AMRO Environmental Laboratories Corp.

02-Jun-03

Lab Order: 0305131
Client: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date	Batch ID
0305131-04F	1R-20128	5/15/03	Aqueous	pH, Water			5/21/03	R18973
0305131-05A	1R-20129			VOLATILES by GC/MS		5/24/03	5/24/03	R18965

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill
Lab Order: 0305131

Lab ID: 0305131-01
Client Sample ID: 1R-20125
Collection Date: 5/15/03
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS DISSOLVED SW-846		**SW6010B**				Analyst: **SJC**
Antimony	ND	20		µg/L	1	5/21/03 7:01:32 PM
Beryllium	ND	5.0		µg/L	1	5/21/03 7:01:32 PM
Cadmium	ND	5.0		µg/L	1	5/21/03 7:01:32 PM
Chromium	ND	10		µg/L	1	5/21/03 7:01:32 PM
Copper	ND	25		µg/L	1	5/21/03 7:01:32 PM
Nickel	ND	40		µg/L	1	5/21/03 7:01:32 PM
Silver	ND	7.0		µg/L	1	5/21/03 7:01:32 PM
Zinc	ND	20		µg/L	1	5/21/03 7:01:32 PM
ARSENIC, DISSOLVED		**SW7060A**				Analyst: **APL**
Arsenic	ND	5.0		µg/L	1	5/27/03 10:51:34 PM
PH		**E150.1**				Analyst: **GM**
**** Sample receipt problems were observed for this test method. See Case Narrative for details. ****						
pH	7.3	0	H	pH Units	1	5/21/03
ION CHROMATOGRAPHY		**E300**				Analyst: **APL**
Sulfate	5.3	5.0		mg/L	5	5/21/03 11:57:08 AM
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **GM**
**** Sample receipt problems were observed for this test method. See Case Narrative for details. ****						
Nitrogen, Nitrate (As N)	ND	0.20	H	mg/L	1	5/21/03
MERCURY, DISSOLVED		**SW7470A**				Analyst: **RK**
Mercury	ND	0.20		µg/L	1	5/20/03 4:32:42 PM
LEAD, DISSOLVED		**SW7421**				Analyst: **APL**
Lead	ND	5.0		µg/L	1	5/27/03 10:51:34 PM
SELENIUM, DISSOLVED		**SW7740**				Analyst: **APL**
Selenium	ND	5.0		µg/L	1	5/27/03 10:51:34 PM
THALLIUM, DISSOLVED		**SW7841**				Analyst: **APL**
Thallium	ND	5.0		µg/L	1	5/27/03 10:51:34 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
H - Method prescribed holding time exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
- See Case Narrative
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill
Lab Order: 0305131

Lab ID: 0305131-02
Client Sample ID: 1R-20126
Collection Date: 5/15/03
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS DISSOLVED SW-846		**SW6010B**				Analyst: **SJC**
Antimony	ND	20		µg/L	1	5/21/03 7:29:04 PM
Beryllium	ND	5.0		µg/L	1	5/21/03 7:29:04 PM
Cadmium	ND	5.0		µg/L	1	5/21/03 7:29:04 PM
Chromium	ND	10		µg/L	1	5/21/03 7:29:04 PM
Copper	ND	25		µg/L	1	5/21/03 7:29:04 PM
Nickel	ND	40		µg/L	1	5/21/03 7:29:04 PM
Silver	ND	7.0		µg/L	1	5/21/03 7:29:04 PM
Zinc	27	20		µg/L	1	5/21/03 7:29:04 PM
ARSENIC, DISSOLVED		**SW7060A**				Analyst: **APL**
Arsenic	ND	5.0		µg/L	1	5/27/03 11:17:15 PM
PH		**E150.1**				Analyst: **GM**
**** Sample receipt problems were observed for this test method. See Case Narrative for details. ****						
pH	7.3	0	H	pH Units	1	5/21/03
ION CHROMATOGRAPHY		**E300**				Analyst: **APL**
Sulfate	5.6	5.0		mg/L	5	5/21/03 1:48:17 PM
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **GM**
**** Sample receipt problems were observed for this test method. See Case Narrative for details. ****						
Nitrogen, Nitrate (As N)	ND	0.20	H	mg/L	1	5/21/03
MERCURY, DISSOLVED		**SW7470A**				Analyst: **RK**
Mercury	ND	0.20		µg/L	1	5/20/03 4:46:06 PM
LEAD, DISSOLVED		**SW7421**				Analyst: **APL**
Lead	ND	5.0		µg/L	1	5/27/03 11:17:15 PM
SELENIUM, DISSOLVED		**SW7740**				Analyst: **APL**
Selenium	ND	5.0		µg/L	1	5/27/03 11:17:15 PM
THALLIUM, DISSOLVED		**SW7841**				Analyst: **APL**
Thallium	ND	5.0		µg/L	1	5/27/03 11:17:15 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
H - Method prescribed holding time exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
- See Case Narrative
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill
Lab Order: 0305131

Lab ID: 0305131-03
Client Sample ID: 1R-20127
Collection Date: 5/15/03
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS DISSOLVED SW-846		**SW6010B**				Analyst: **SJC**
Antimony	ND	20		µg/L	1	5/21/03 7:34:31 PM
Beryllium	ND	5.0		µg/L	1	5/21/03 7:34:31 PM
Cadmium	ND	5.0		µg/L	1	5/21/03 7:34:31 PM
Chromium	ND	10		µg/L	1	5/21/03 7:34:31 PM
Copper	ND	25		µg/L	1	5/21/03 7:34:31 PM
Nickel	ND	40		µg/L	1	5/21/03 7:34:31 PM
Silver	ND	7.0		µg/L	1	5/21/03 7:34:31 PM
Zinc	ND	20		µg/L	1	5/21/03 7:34:31 PM
ARSENIC, DISSOLVED		**SW7060A**				Analyst: **APL**
Arsenic	ND	5.0		µg/L	1	5/27/03 11:26:05 PM
PH		**E150.1**				Analyst: **GM**
**** Sample receipt problems were observed for this test method. See Case Narrative for details. ****						
pH	7.4	0	H	pH Units	1	5/21/03
ION CHROMATOGRAPHY		**E300**				Analyst: **APL**
Sulfate	8.0	5.0		mg/L	5	5/21/03 2:06:49 PM
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **GM**
**** Sample receipt problems were observed for this test method. See Case Narrative for details. ****						
Nitrogen, Nitrate (As N)	ND	0.20	H	mg/L	1	5/21/03
MERCURY, DISSOLVED		**SW7470A**				Analyst: **RK**
Mercury	ND	0.20		µg/L	1	5/20/03 4:50:03 PM
LEAD, DISSOLVED		**SW7421**				Analyst: **APL**
Lead	ND	5.0		µg/L	1	5/27/03 11:26:05 PM
SELENIUM, DISSOLVED		**SW7740**				Analyst: **APL**
Selenium	ND	5.0		µg/L	1	5/27/03 11:26:05 PM
THALLIUM, DISSOLVED		**SW7841**				Analyst: **APL**
Thallium	ND	5.0		µg/L	1	5/27/03 11:26:05 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
H - Method prescribed holding time exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
- See Case Narrative
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill
Lab Order: 0305131

Lab ID: 0305131-04
Client Sample ID: 1R-20128
Collection Date: 5/15/03
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS TOTAL SW-846		**SW6010B**				Analyst: **SJC**
Antimony	ND	20		µg/L	1	5/21/03 7:49:14 PM
Beryllium	ND	5.0		µg/L	1	5/21/03 7:49:14 PM
Cadmium	ND	5.0		µg/L	1	5/21/03 7:49:14 PM
Chromium	ND	10		µg/L	1	5/21/03 7:49:14 PM
Copper	ND	25		µg/L	1	5/21/03 7:49:14 PM
Nickel	ND	40		µg/L	1	5/21/03 7:49:14 PM
Silver	ND	7.0		µg/L	1	5/21/03 7:49:14 PM
Zinc	ND	20		µg/L	1	5/21/03 7:49:14 PM
ARSENIC, TOTAL		**SW7060A**				Analyst: **APL**
Arsenic	ND	5.0		µg/L	1	5/27/03 11:34:28 PM
PH		**E150.1**				Analyst: **GM**
**** Sample receipt problems were observed for this test method. See Case Narrative for details. ****						
pH	5.7	0	H	pH Units	1	5/21/03
ION CHROMATOGRAPHY		**E300**				Analyst: **APL**
Sulfate	ND	1.0		mg/L	1	5/22/03
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **GM**
**** Sample receipt problems were observed for this test method. See Case Narrative for details. ****						
Nitrogen, Nitrate (As N)	ND	0.20	H	mg/L	1	5/21/03
MERCURY, TOTAL		**SW7470A**				Analyst: **RK**
Mercury	ND	0.20		µg/L	1	5/20/03 4:54:00 PM
LEAD, TOTAL		**SW7421**				Analyst: **APL**
Lead	ND	5.0		µg/L	1	5/27/03 11:34:28 PM
SELENIUM, TOTAL		**SW7740**				Analyst: **APL**
Selenium	ND	5.0		µg/L	1	5/27/03 11:34:28 PM
THALLIUM, TOTAL		**SW7841**				Analyst: **APL**
Thallium	ND	5.0		µg/L	1	5/27/03 11:34:28 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- H - Method prescribed holding time exceeded
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- # - See Case Narrative
- RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT:	Camp Dresser and McKee	**Client Sample ID:**	1R-20125
Lab Order:	0305131		
Project:	2603-024 Lincoln County Landfill	**Collection Date:**	5/15/03
Lab ID:	0305131-01A	**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **JSL**
Acrylonitrile	ND	10		µg/L	1	5/24/03 4:12:00 PM
Iodomethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Vinyl acetate	ND	10		µg/L	1	5/24/03 4:12:00 PM
Dichlorodifluoromethane	ND	2.0		µg/L	1	5/24/03 4:12:00 PM
Chloromethane	ND	2.0		µg/L	1	5/24/03 4:12:00 PM
Vinyl chloride	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Chloroethane	ND	2.0		µg/L	1	5/24/03 4:12:00 PM
Bromomethane	ND	2.0		µg/L	1	5/24/03 4:12:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Diethyl ether	ND	5.0		µg/L	1	5/24/03 4:12:00 PM
Acetone	ND	5.0		µg/L	1	5/24/03 4:12:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Carbon disulfide	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Methylene chloride	ND	2.0		µg/L	1	5/24/03 4:12:00 PM
Methyl tert-butyl ether	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
trans-1,2-Dichloroethene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
2-Butanone	ND	5.0		µg/L	1	5/24/03 4:12:00 PM
2,2-Dichloropropane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
cis-1,2-Dichloroethene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Chloroform	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Tetrahydrofuran	ND	10		µg/L	1	5/24/03 4:12:00 PM
Bromochloromethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Carbon tetrachloride	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,2-Dichloroethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Benzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Trichloroethene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Dibromomethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
4-Methyl-2-pentanone	ND	5.0		µg/L	1	5/24/03 4:12:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Toluene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,2-Dibromoethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

H - Method prescribed holding time exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Client Sample ID: 1R-20125
Lab Order: 0305131
Project: 2603-024 Lincoln County Landfill
Collection Date: 5/15/03
Lab ID: 0305131-01A
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
2-Hexanone	ND	5.0		µg/L	1	5/24/03 4:12:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Tetrachloroethene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Chlorobenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Ethylbenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
m,p-Xylene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
o-Xylene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Styrene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Bromoform	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,2,3-Trichloropropane	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Bromobenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
n-Butylbenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/24/03 4:12:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Naphthalene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/24/03 4:12:00 PM
Surr: Dibromofluoromethane	106	85-120		%REC	1	5/24/03 4:12:00 PM
Surr: 1,2-Dichloroethane-d4	98.8	75-124		%REC	1	5/24/03 4:12:00 PM
Surr: Toluene-d8	94.8	88-109		%REC	1	5/24/03 4:12:00 PM
Surr: 4-Bromofluorobenzene	97.0	77-117		%REC	1	5/24/03 4:12:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
H - Method prescribed holding time exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
- See Case Narrative
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT:	Camp Dresser and McKee	**Client Sample ID:**	1R-20126
Lab Order:	0305131		
Project:	2603-024 Lincoln County Landfill	**Collection Date:**	5/15/03
Lab ID:	0305131-02A	**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **JSL**
Acrylonitrile	ND	10		µg/L	1	5/24/03 4:47:00 PM
Iodomethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Vinyl acetate	ND	10		µg/L	1	5/24/03 4:47:00 PM
Dichlorodifluoromethane	ND	2.0		µg/L	1	5/24/03 4:47:00 PM
Chloromethane	ND	2.0		µg/L	1	5/24/03 4:47:00 PM
Vinyl chloride	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Chloroethane	ND	2.0		µg/L	1	5/24/03 4:47:00 PM
Bromomethane	ND	2.0		µg/L	1	5/24/03 4:47:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Diethyl ether	ND	5.0		µg/L	1	5/24/03 4:47:00 PM
Acetone	ND	5.0		µg/L	1	5/24/03 4:47:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Carbon disulfide	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Methylene chloride	ND	2.0		µg/L	1	5/24/03 4:47:00 PM
Methyl tert-butyl ether	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
trans-1,2-Dichloroethene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
2-Butanone	ND	5.0		µg/L	1	5/24/03 4:47:00 PM
2,2-Dichloropropane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
cis-1,2-Dichloroethene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Chloroform	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Tetrahydrofuran	ND	10		µg/L	1	5/24/03 4:47:00 PM
Bromochloromethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Carbon tetrachloride	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,2-Dichloroethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Benzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Trichloroethene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Dibromomethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
4-Methyl-2-pentanone	ND	5.0		µg/L	1	5/24/03 4:47:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Toluene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,2-Dibromoethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

H - Method prescribed holding time exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Client Sample ID: 1R-20126
Lab Order: 0305131
Project: 2603-024 Lincoln County Landfill
Collection Date: 5/15/03
Lab ID: 0305131-02A
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
2-Hexanone	ND	5.0		µg/L	1	5/24/03 4:47:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Tetrachloroethene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Chlorobenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Ethylbenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
m,p-Xylene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
o-Xylene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Styrene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Bromoform	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,2,3-Trichloropropane	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Bromobenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
n-Butylbenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/24/03 4:47:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Naphthalene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/24/03 4:47:00 PM
Surr: Dibromofluoromethane	107	85-120		%REC	1	5/24/03 4:47:00 PM
Surr: 1,2-Dichloroethane-d4	99.7	75-124		%REC	1	5/24/03 4:47:00 PM
Surr: Toluene-d8	96.1	88-109		%REC	1	5/24/03 4:47:00 PM
Surr: 4-Bromofluorobenzene	95.5	77-117		%REC	1	5/24/03 4:47:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
H - Method prescribed holding time exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
- See Case Narrative
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT:	Camp Dresser and McKee	**Client Sample ID:**	1R-20127
Lab Order:	0305131		
Project:	2603-024 Lincoln County Landfill	**Collection Date:**	5/15/03
Lab ID:	0305131-03A	**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS	**SW8260B**					Analyst: **JSL**
Acrylonitrile	ND	10		µg/L	1	5/24/03 5:22:00 PM
Iodomethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Vinyl acetate	ND	10		µg/L	1	5/24/03 5:22:00 PM
Dichlorodifluoromethane	ND	2.0		µg/L	1	5/24/03 5:22:00 PM
Chloromethane	ND	2.0		µg/L	1	5/24/03 5:22:00 PM
Vinyl chloride	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Chloroethane	ND	2.0		µg/L	1	5/24/03 5:22:00 PM
Bromomethane	ND	2.0		µg/L	1	5/24/03 5:22:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Diethyl ether	ND	5.0		µg/L	1	5/24/03 5:22:00 PM
Acetone	ND	5.0		µg/L	1	5/24/03 5:22:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Carbon disulfide	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Methylene chloride	ND	2.0		µg/L	1	5/24/03 5:22:00 PM
Methyl tert-butyl ether	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
trans-1,2-Dichloroethene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
2-Butanone	ND	5.0		µg/L	1	5/24/03 5:22:00 PM
2,2-Dichloropropane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
cis-1,2-Dichloroethene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Chloroform	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Tetrahydrofuran	ND	10		µg/L	1	5/24/03 5:22:00 PM
Bromochloromethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Carbon tetrachloride	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,2-Dichloroethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Benzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Trichloroethene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Dibromomethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
4-Methyl-2-pentanone	ND	5.0		µg/L	1	5/24/03 5:22:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Toluene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,2-Dibromoethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

H - Method prescribed holding time exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Client Sample ID: 1R-20127
Lab Order: 0305131
Project: 2603-024 Lincoln County Landfill
Collection Date: 5/15/03
Lab ID: 0305131-03A
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
2-Hexanone	ND	5.0		µg/L	1	5/24/03 5:22:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Tetrachloroethene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Chlorobenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Ethylbenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
m,p-Xylene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
o-Xylene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Styrene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Bromoform	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,2,3-Trichloropropane	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Bromobenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
n-Butylbenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/24/03 5:22:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Naphthalene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/24/03 5:22:00 PM
Surr: Dibromofluoromethane	108	85-120		%REC	1	5/24/03 5:22:00 PM
Surr: 1,2-Dichloroethane-d4	102	75-124		%REC	1	5/24/03 5:22:00 PM
Surr: Toluene-d8	94.9	88-109		%REC	1	5/24/03 5:22:00 PM
Surr: 4-Bromofluorobenzene	94.4	77-117		%REC	1	5/24/03 5:22:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
H - Method prescribed holding time exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
- See Case Narrative
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT:	Camp Dresser and McKee	**Client Sample ID:**	1R-20128
Lab Order:	0305131		
Project:	2603-024 Lincoln County Landfill	**Collection Date:**	5/15/03
Lab ID:	0305131-04A	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **JSL**
Acrylonitrile	ND	10		µg/L	1	5/24/03 1:50:00 PM
Iodomethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Vinyl acetate	ND	10		µg/L	1	5/24/03 1:50:00 PM
Dichlorodifluoromethane	ND	2.0		µg/L	1	5/24/03 1:50:00 PM
Chloromethane	ND	2.0		µg/L	1	5/24/03 1:50:00 PM
Vinyl chloride	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Chloroethane	ND	2.0		µg/L	1	5/24/03 1:50:00 PM
Bromomethane	ND	2.0		µg/L	1	5/24/03 1:50:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Diethyl ether	ND	5.0		µg/L	1	5/24/03 1:50:00 PM
Acetone	ND	5.0		µg/L	1	5/24/03 1:50:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Carbon disulfide	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Methylene chloride	ND	2.0		µg/L	1	5/24/03 1:50:00 PM
Methyl tert-butyl ether	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
trans-1,2-Dichloroethene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
2-Butanone	ND	5.0		µg/L	1	5/24/03 1:50:00 PM
2,2-Dichloropropane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
cis-1,2-Dichloroethene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Chloroform	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Tetrahydrofuran	ND	10		µg/L	1	5/24/03 1:50:00 PM
Bromochloromethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Carbon tetrachloride	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,2-Dichloroethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Benzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Trichloroethene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Dibromomethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
4-Methyl-2-pentanone	ND	5.0		µg/L	1	5/24/03 1:50:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Toluene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,2-Dibromoethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

H - Method prescribed holding time exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT:	Camp Dresser and McKee	**Client Sample ID:**	1R-20128
Lab Order:	0305131		
Project:	2603-024 Lincoln County Landfill	**Collection Date:**	5/15/03
Lab ID:	0305131-04A	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
2-Hexanone	ND	5.0		µg/L	1	5/24/03 1:50:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Tetrachloroethene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Chlorobenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Ethylbenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
m,p-Xylene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
o-Xylene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Styrene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Bromoform	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,2,3-Trichloropropane	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Bromobenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
n-Butylbenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/24/03 1:50:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Naphthalene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/24/03 1:50:00 PM
Surr: Dibromofluoromethane	106	85-120		%REC	1	5/24/03 1:50:00 PM
Surr: 1,2-Dichloroethane-d4	97.4	75-124		%REC	1	5/24/03 1:50:00 PM
Surr: Toluene-d8	96.2	88-109		%REC	1	5/24/03 1:50:00 PM
Surr: 4-Bromofluorobenzene	96.7	77-117		%REC	1	5/24/03 1:50:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

H - Method prescribed holding time exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT:	Camp Dresser and McKee	**Client Sample ID:**	1R-20129
Lab Order:	0305131		
Project:	2603-024 Lincoln County Landfill	**Collection Date:**	5/15/03
Lab ID:	0305131-05A	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **JSL**
Acrylonitrile	ND	10		µg/L	1	5/24/03 1:15:00 PM
Iodomethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Vinyl acetate	ND	10		µg/L	1	5/24/03 1:15:00 PM
Dichlorodifluoromethane	ND	2.0		µg/L	1	5/24/03 1:15:00 PM
Chloromethane	ND	2.0		µg/L	1	5/24/03 1:15:00 PM
Vinyl chloride	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Chloroethane	ND	2.0		µg/L	1	5/24/03 1:15:00 PM
Bromomethane	ND	2.0		µg/L	1	5/24/03 1:15:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Diethyl ether	ND	5.0		µg/L	1	5/24/03 1:15:00 PM
Acetone	ND	5.0		µg/L	1	5/24/03 1:15:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Carbon disulfide	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Methylene chloride	ND	2.0		µg/L	1	5/24/03 1:15:00 PM
Methyl tert-butyl ether	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
trans-1,2-Dichloroethene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
2-Butanone	ND	5.0		µg/L	1	5/24/03 1:15:00 PM
2,2-Dichloropropane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
cis-1,2-Dichloroethene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Chloroform	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Tetrahydrofuran	ND	10		µg/L	1	5/24/03 1:15:00 PM
Bromochloromethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Carbon tetrachloride	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,2-Dichloroethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Benzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Trichloroethene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Dibromomethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
4-Methyl-2-pentanone	ND	5.0		µg/L	1	5/24/03 1:15:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Toluene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,2-Dibromoethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

H - Method prescribed holding time exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT:	Camp Dresser and McKee	**Client Sample ID:**	1R-20129
Lab Order:	0305131		
Project:	2603-024 Lincoln County Landfill	**Collection Date:**	5/15/03
Lab ID:	0305131-05A	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
2-Hexanone	ND	5.0		µg/L	1	5/24/03 1:15:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Tetrachloroethene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Chlorobenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Ethylbenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
m,p-Xylene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
o-Xylene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Styrene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Bromoform	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,2,3-Trichloropropane	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Bromobenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
n-Butylbenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/24/03 1:15:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Naphthalene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/24/03 1:15:00 PM
Surr: Dibromofluoromethane	104	85-120		%REC	1	5/24/03 1:15:00 PM
Surr: 1,2-Dichloroethane-d4	97.9	75-124		%REC	1	5/24/03 1:15:00 PM
Surr: Toluene-d8	94.6	88-109		%REC	1	5/24/03 1:15:00 PM
Surr: 4-Bromofluorobenzene	93.4	77-117		%REC	1	5/24/03 1:15:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

H - Method prescribed holding time exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill
Lab Order: 0305131

Lab ID: 0305131-01 **Collection Date:** 5/15/03
Client Sample ID: 1R-20125 **Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS (MODIFIED 8260B) SW8260B						Analyst: **JSL**
Gasoline Range Organics	ND	100		µg/L	1	5/28/03 6:38:00 PM
Surr: Dibromofluoromethane	99.0	85-120		%REC	1	5/28/03 6:38:00 PM
Surr: 1,2-Dichloroethane-d4	97.5	80-124		%REC	1	5/28/03 6:38:00 PM
Surr: Toluene-d8	99.1	88-109		%REC	1	5/28/03 6:38:00 PM
Surr: 4-Bromofluorobenzene	95.4	77-117		%REC	1	5/28/03 6:38:00 PM

Lab ID: 0305131-02 **Collection Date:** 5/15/03
Client Sample ID: 1R-20126 **Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS (MODIFIED 8260B) SW8260B						Analyst: **JSL**
Gasoline Range Organics	ND	100		µg/L	1	5/28/03 7:12:00 PM
Surr: Dibromofluoromethane	98.9	85-120		%REC	1	5/28/03 7:12:00 PM
Surr: 1,2-Dichloroethane-d4	97.6	80-124		%REC	1	5/28/03 7:12:00 PM
Surr: Toluene-d8	96.2	88-109		%REC	1	5/28/03 7:12:00 PM
Surr: 4-Bromofluorobenzene	98.7	77-117		%REC	1	5/28/03 7:12:00 PM

Lab ID: 0305131-03 **Collection Date:** 5/15/03
Client Sample ID: 1R-20127 **Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS (MODIFIED 8260B) SW8260B						Analyst: **JSL**
Gasoline Range Organics	ND	100		µg/L	1	5/28/03 8:22:00 PM
Surr: Dibromofluoromethane	99.3	85-120		%REC	1	5/28/03 8:22:00 PM
Surr: 1,2-Dichloroethane-d4	99.7	80-124		%REC	1	5/28/03 8:22:00 PM
Surr: Toluene-d8	99.5	88-109		%REC	1	5/28/03 8:22:00 PM
Surr: 4-Bromofluorobenzene	94.7	77-117		%REC	1	5/28/03 8:22:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
H - Method prescribed holding time exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
- See Case Narrative
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill
Lab Order: 0305131

Lab ID: 0305131-04
Client Sample ID: 1R-20128
Collection Date: 5/15/03
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS (MODIFIED 8260B) SW8260B						Analyst: **JSL**
Gasoline Range Organics	ND	100		µg/L	1	5/28/03 7:47:00 PM
Surr: Dibromofluoromethane	102	85-120		%REC	1	5/28/03 7:47:00 PM
Surr: 1,2-Dichloroethane-d4	97.6	80-124		%REC	1	5/28/03 7:47:00 PM
Surr: Toluene-d8	99.1	88-109		%REC	1	5/28/03 7:47:00 PM
Surr: 4-Bromofluorobenzene	94.2	77-117		%REC	1	5/28/03 7:47:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
H - Method prescribed holding time exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
- See Case Narrative
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT:	Camp Dresser and McKee	**Client Sample ID:**	1R-20125
Lab Order:	0305131		
Project:	2603-024 Lincoln County Landfill	**Collection Date:**	5/15/03
Lab ID:	0305131-01C	**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PAH BY EPA 8270C		**SW8270C**				Analyst: **KD**
Naphthalene	ND	11		µg/L	1	5/27/03 5:57:00 PM
2-Methylnaphthalene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Acenaphthylene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Acenaphthene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Fluorene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Phenanthrene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Anthracene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Fluoranthene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Pyrene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Benz(a)anthracene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Chrysene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Benzo(b)fluoranthene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Benzo(k)fluoranthene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Benzo(a)pyrene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Dibenz(a,h)anthracene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Indeno(1,2,3-cd)pyrene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Benzo(g,h,i)perylene	ND	11		µg/L	1	5/27/03 5:57:00 PM
Surr: Nitrobenzene-d5	77.2	38-118		%REC	1	5/27/03 5:57:00 PM
Surr: 2-Fluorobiphenyl	79.3	39-109		%REC	1	5/27/03 5:57:00 PM
Surr: 4-Terphenyl-d14	90.0	39-128		%REC	1	5/27/03 5:57:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
H - Method prescribed holding time exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
- See Case Narrative
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT:	Camp Dresser and McKee	**Client Sample ID:**	1R-20126
Lab Order:	0305131		
Project:	2603-024 Lincoln County Landfill	**Collection Date:**	5/15/03
Lab ID:	0305131-02C	**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PAH BY EPA 8270C		**SW8270C**				Analyst: **KD**
Naphthalene	ND	11		µg/L	1	5/27/03 6:24:00 PM
2-Methylnaphthalene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Acenaphthylene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Acenaphthene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Fluorene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Phenanthrene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Anthracene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Fluoranthene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Pyrene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Benz(a)anthracene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Chrysene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Benzo(b)fluoranthene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Benzo(k)fluoranthene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Benzo(a)pyrene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Dibenz(a,h)anthracene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Indeno(1,2,3-cd)pyrene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Benzo(g,h,i)perylene	ND	11		µg/L	1	5/27/03 6:24:00 PM
Surr: Nitrobenzene-d5	67.2	38-118		%REC	1	5/27/03 6:24:00 PM
Surr: 2-Fluorobiphenyl	66.3	39-109		%REC	1	5/27/03 6:24:00 PM
Surr: 4-Terphenyl-d14	89.7	39-128		%REC	1	5/27/03 6:24:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

H - Method prescribed holding time exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT:	Camp Dresser and McKee	**Client Sample ID:**	1R-20127
Lab Order:	0305131		
Project:	2603-024 Lincoln County Landfill	**Collection Date:**	5/15/03
Lab ID:	0305131-03C	**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PAH BY EPA 8270C		**SW8270C**				Analyst: **KD**
Naphthalene	ND	11		µg/L	1	5/27/03 6:51:00 PM
2-Methylnaphthalene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Acenaphthylene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Acenaphthene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Fluorene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Phenanthrene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Anthracene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Fluoranthene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Pyrene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Benz(a)anthracene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Chrysene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Benzo(b)fluoranthene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Benzo(k)fluoranthene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Benzo(a)pyrene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Dibenz(a,h)anthracene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Indeno(1,2,3-cd)pyrene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Benzo(g,h,i)perylene	ND	11		µg/L	1	5/27/03 6:51:00 PM
Surr: Nitrobenzene-d5	67.7	38-118		%REC	1	5/27/03 6:51:00 PM
Surr: 2-Fluorobiphenyl	67.1	39-109		%REC	1	5/27/03 6:51:00 PM
Surr: 4-Terphenyl-d14	97.0	39-128		%REC	1	5/27/03 6:51:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
H - Method prescribed holding time exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
- See Case Narrative
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT:	Camp Dresser and McKee	**Client Sample ID:**	1R-20128
Lab Order:	0305131		
Project:	2603-024 Lincoln County Landfill	**Collection Date:**	5/15/03
Lab ID:	0305131-04C	**Matrix:**	AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PAH BY EPA 8270C		**SW8270C**				Analyst: **KD**
Naphthalene	ND	10		µg/L	1	5/27/03 8:11:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Acenaphthylene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Acenaphthene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Fluorene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Phenanthrene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Anthracene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Fluoranthene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Pyrene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Benz(a)anthracene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Chrysene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Benzo(a)pyrene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	5/27/03 8:11:00 PM
Surr: Nitrobenzene-d5	70.1	38-118		%REC	1	5/27/03 8:11:00 PM
Surr: 2-Fluorobiphenyl	71.4	39-109		%REC	1	5/27/03 8:11:00 PM
Surr: 4-Terphenyl-d14	76.5	39-128		%REC	1	5/27/03 8:11:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

H - Method prescribed holding time exceeded

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill
Lab Order: 0305131

Lab ID: 0305131-01
Collection Date: 5/15/03
Client Sample ID: 1R-20125
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **RAP**
Aroclor 1016	ND	0.22		µg/L	1	5/23/03 4:33:00 PM
Aroclor 1221	ND	0.22		µg/L	1	5/23/03 4:33:00 PM
Aroclor 1232	ND	0.22		µg/L	1	5/23/03 4:33:00 PM
Aroclor 1242	ND	0.22		µg/L	1	5/23/03 4:33:00 PM
Aroclor 1248	ND	0.22		µg/L	1	5/23/03 4:33:00 PM
Aroclor 1254	ND	0.22		µg/L	1	5/23/03 4:33:00 PM
Aroclor 1260	ND	0.22		µg/L	1	5/23/03 4:33:00 PM
Surr: Decachlorobiphenyl	47.3	20-119		%REC	1	5/23/03 4:33:00 PM
Surr: Tetrachloro-m-xylene	70.7	34-113		%REC	1	5/23/03 4:33:00 PM

Lab ID: 0305131-02
Collection Date: 5/15/03
Client Sample ID: 1R-20126
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **RAP**
Aroclor 1016	ND	0.22		µg/L	1	5/23/03 4:57:00 PM
Aroclor 1221	ND	0.22		µg/L	1	5/23/03 4:57:00 PM
Aroclor 1232	ND	0.22		µg/L	1	5/23/03 4:57:00 PM
Aroclor 1242	ND	0.22		µg/L	1	5/23/03 4:57:00 PM
Aroclor 1248	ND	0.22		µg/L	1	5/23/03 4:57:00 PM
Aroclor 1254	ND	0.22		µg/L	1	5/23/03 4:57:00 PM
Aroclor 1260	ND	0.22		µg/L	1	5/23/03 4:57:00 PM
Surr: Decachlorobiphenyl	54.3	20-119		%REC	1	5/23/03 4:57:00 PM
Surr: Tetrachloro-m-xylene	59.4	34-113		%REC	1	5/23/03 4:57:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
H - Method prescribed holding time exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
- See Case Narrative
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill
Lab Order: 0305131

Lab ID: 0305131-03
Collection Date: 5/15/03
Client Sample ID: 1R-20127
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **RAP**
Aroclor 1016	ND	0.22		µg/L	1	5/23/03 5:21:00 PM
Aroclor 1221	ND	0.22		µg/L	1	5/23/03 5:21:00 PM
Aroclor 1232	ND	0.22		µg/L	1	5/23/03 5:21:00 PM
Aroclor 1242	ND	0.22		µg/L	1	5/23/03 5:21:00 PM
Aroclor 1248	ND	0.22		µg/L	1	5/23/03 5:21:00 PM
Aroclor 1254	ND	0.22		µg/L	1	5/23/03 5:21:00 PM
Aroclor 1260	ND	0.22		µg/L	1	5/23/03 5:21:00 PM
Surr: Decachlorobiphenyl	63.7	20-119		%REC	1	5/23/03 5:21:00 PM
Surr: Tetrachloro-m-xylene	84.7	34-113		%REC	1	5/23/03 5:21:00 PM

Lab ID: 0305131-04
Collection Date: 5/15/03
Client Sample ID: 1R-20128
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **RAP**
Aroclor 1016	ND	0.20		µg/L	1	5/23/03 5:45:00 PM
Aroclor 1221	ND	0.20		µg/L	1	5/23/03 5:45:00 PM
Aroclor 1232	ND	0.20		µg/L	1	5/23/03 5:45:00 PM
Aroclor 1242	ND	0.20		µg/L	1	5/23/03 5:45:00 PM
Aroclor 1248	ND	0.20		µg/L	1	5/23/03 5:45:00 PM
Aroclor 1254	ND	0.20		µg/L	1	5/23/03 5:45:00 PM
Aroclor 1260	ND	0.20		µg/L	1	5/23/03 5:45:00 PM
Surr: Decachlorobiphenyl	63.3	20-119		%REC	1	5/23/03 5:45:00 PM
Surr: Tetrachloro-m-xylene	82.0	34-113		%REC	1	5/23/03 5:45:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
H - Method prescribed holding time exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
- See Case Narrative
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *02-Jun-03*

CLIENT: Camp Dresser and McKee
Project: 2603-024 Lincoln County Landfill
Lab Order: 0305131

Lab ID: 0305131-01 **Collection Date:** 5/15/03
Client Sample ID: 1R-20125 **Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **KD**
Diesel Range Organics	0.14	0.052		mg/L	1	5/21/03 8:10:00 PM
Surr: o-Terphenyl	96.6	43-129		%REC	1	5/21/03 8:10:00 PM

Lab ID: 0305131-02 **Collection Date:** 5/15/03
Client Sample ID: 1R-20126 **Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **KD**
Diesel Range Organics	ND	0.053		mg/L	1	5/21/03 8:46:00 PM
Surr: o-Terphenyl	103	43-129		%REC	1	5/21/03 8:46:00 PM

Lab ID: 0305131-03 **Collection Date:** 5/15/03
Client Sample ID: 1R-20127 **Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **KD**
Diesel Range Organics	0.066	0.053		mg/L	1	5/21/03 9:22:00 PM
Surr: o-Terphenyl	96.8	43-129		%REC	1	5/21/03 9:22:00 PM

Lab ID: 0305131-04 **Collection Date:** 5/15/03
Client Sample ID: 1R-20128 **Matrix:** AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **KD**
Diesel Range Organics	0.56	0.052		mg/L	1	5/21/03 11:10:00 PM
Surr: o-Terphenyl	105	43-129		%REC	1	5/21/03 11:10:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- H - Method prescribed holding time exceeded
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- # - See Case Narrative
- RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

USEPA REGION 8 LIBBY SITE INVESTIGATION v1f

TEM Asbestos Structure Count – EPA 100.2

Results for Water Sample

EMSL

SAMPLE ID

EPA Sample Number	1R-20125 MW-6
Status	Analyzed
Lab Job Number	270300514
Lab Sample Number	270300514-0001
Sample Type	Water
Analysis Method	EPA 100.2
Counting Rules	Mod20

Lincoln County Landfill

PARAMETERS

EFA	1295	mm2
Number of Grid Openings (LA and OA)	10	
GO Area	0.0059	mm2
First dilution factor	N/A	
Second dilution factor	N/A	
Total dilution factor	1	
Volume applied to filter	25	mL

Number of Grid Openings (C) 10

Well water

F-factor 1

Results	LA		OA		C		Total Asbestos	
	All	> 10 um	All	> 10 um	All	> 10 um	All	> 10 um
Count	3	0	0	0	0	0	3	0
Concentration (s/L)	2.6E+06	<8.8E+05	<8.8E+05	<8.8E+05	<8.8E+05	<8.8E+05	2.6E+06	<8.8E+05
Sensitivity (s/L)	8.8E+05				8.8E+05			

Conc = Count * EFA / (GOs Counted * GO Area * Volume / 1000) * Total Dilution Factor
Sensitivity = EFA / (GOs Counted * GO Area * Volume / 1000) * Total Dilution Factor

USEPA REGION 8 LIBBY, SITE INVESTIGATION v11
TEM Asbestos Structure Count – EPA 100.2
Results for Water Sample

EMSL

SAMPLE ID

EPA Sample Number	1R-20127 mw-7
Status	Analyzed
Lab Job Number	270300514
Lab Sample Number	270300514-0002
Sample Type	Water
Analysis Method	EPA 100.2
Counting Rules	Mod20

Lincoln Co. Landfill

PARAMETERS

EFA	1295	mm2			
Number of Grid Openings (LA and OA)	10		Number of Grid Openings (C)	10	
GO Area	0.0059	mm2			
First dilution factor	N/A				
Second dilution factor	N/A				
Total dilution factor	1		F-factor	1	
Volume applied to filter	25	mL			

Well water

Results	LA		OA		C		Total Asbestos	
	All	> 10 um	All	> 10 um	All	> 10 um	All	> 10 um
Count	0	0	0	0	0	0	0	0
Concentration (s/L)	<8.8E+05	<8.8E+05	<8.8E+05	<8.8E+05	<8.8E+05	<8.8E+05	<8.8E+05	<8.8E+05
Sensitivity (s/L)	8.8E+05				8.8E+05			

Conc = Count * EFA / (GOs Counted * GO Area * Volume / 1000) * Total Dilution Factor
Sensitivity = EFA / (GOs Counted * GO Area * Volume / 1000) * Total Dilution Factor